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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/049,884	02/12/2002	Doron Rajwan	212/02588	6319
44909	7590	12/14/2006	EXAMINER	
WOLF, BLOCK, SCHORR & SOLIS-COHEN LLP			CHO, HONG SOL	
250 PARK AVENUE			ART UNIT	PAPER NUMBER
NEW YORK, NY 10177			2616	

DATE MAILED: 12/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/049,884	Applicant(s) RAJWAN, DORON	
	Examiner Hong Cho	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 and 35-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4, 11-20 and 35-44 is/are allowed.
- 6) ☒ Claim(s) 5-10, 21, 45 and 46 is/are rejected.
- 7) ☒ Claim(s) 22-27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

2. Claim 5 is objected to because of the following informalities:

Re claim 5, line 3, "data missing" should read - - missing data - - .

Re claim 5, line 8, "is" should read - - are - - .

Claim Rejections - 35 USC § 112, Second paragraph

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 5-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 5, it is not clear what is meant by “*reconstructing said missing data from said data packets, using said previously received first part of the file*”.

Re claims 6 and 10, it is not clear what is meant by “*...receivers have (with in claim 10) different missing data*”.

Re claim 8, it is not clear what is meant by “*reconstructing using data reconstructed from said part of a file*”.

Claims 6-10 dependent from claim 1 are similarly rejected.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(e) that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 5-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Gemmell (USPUB 20040260863), hereinafter referred to as Gemmell.

Re claim 5, as best understood, Gemmell discloses receiving packets and reconstruction of lost packets of a file (*receiving and reconstructing at least a first part of*

a data file from a transmitter and reconstructing missing data from data packets, paragraph [0011], lines 5-8), determining lost packets (determining missing data relative to the file, paragraph [0011], lines 6-7), receiving error correction packets in the data stream allowing reconstruction of lost packets (receiving from a data stream transmitted independently of said missing data, substantially only enough data packets required to decode said missing data and reconstructing said missing data from said data packets, using said previously received first part of the file, paragraph [0011], lines 6-7).

Gemmell discloses avoiding feedback from receivers in the form of acknowledgements *(an identification of at least one of said received at least part of a file and said missing data is not known to said transmitter, paragraph [0010], lines 3-5).*

Re claims 6 and 10, as best understood, Gemmell discloses distributing multicast data to all requesting clients where packets are delivered without guarantee of reception *(data stream is transmitted to a plurality of receivers have different missing data, paragraph [0006], lines 3-4).*

Re claim 7, Gemmell discloses encoding data using FEC (paragraph [0011], lines 5-6).

Re claims 8 and 9, as best understood, Gemmell discloses receiving packets and reconstruction of lost packets of a file (paragraph [0011], lines 5-8).

Claim 21 is rejected under 35 U.S.C. 102(e) as being anticipated by Schmidt et al (US 6907473), hereinafter referred to as Schmidt.

Re claim 21, Schmidt discloses a series of data stream of packets (*providing at least a portion of a file as a plurality of blocks*, figure 3a, element 300), interleaving segments from different sets (*randomly selecting a subset of blocks at a probability of other than 50%*, column 9, lines 24-25), generating a packet by combining said blocks (column 9, lines 25-26), such that an individual block cannot be reconstructed from a single packet; and repeating said selecting and said generating for a plurality of packets (column 9, lines 25-33).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gemmell in view of Chainer et al et al (US 6075665), hereinafter referred to as Chainer.

Re claim 45, Gemmell discloses encoding a data object by using forward error correction (FEC) into packets (*encoding a data file to be stored as a plurality of FEC coded packets*), and allocating disk space for packets (*writing said packets to said storage media*, paragraph [0074], lines 1-3). Gemmell fails to disclose determining an expected error rate on a storage media and selecting a number of packets required to overcome the

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error rate. Chainer discloses meeting error rate requirements of mass storages by storing different data rates. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Gemmell to check the error rate of a given storage medium so that optimum amount of packets would be stored according to error rate of the storage medium as suggested by Chainer (column 7, lines 25-28).

Claims 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gemmell Chainer and further in view of Schmidt.

Re claim 46, Gemmell discloses all of the limitations of the base claim, but fails to disclose generating packets randomly. Schmidt discloses data interleaving (figure 3a, element 320). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gemmell to generate packets randomly for the benefit of avoiding adjacent burst errors.

Allowable Subject Matter

9. Claims 22-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims

10. Claims 1-4, 11-20 and 35-44 are allowable.

The following is an examiner's statement for reasons for allowance.

11. Claim 1 is allowable over the prior art of record since the cited references taken individually or in combination fail to particularly teach or fairly suggest selecting a subset of blocks from a bucket, generating a packet by combining selected blocks, generating at least one cross-bucket packet by combining blocks from different buckets, and transmitting generated packets and generated cross-packets, said packets and said cross-packets being marked as such.

Claim 11 is allowable over the prior art of record since the cited references taken individually or in combination fail to particularly teach or fairly suggest selecting blocks in an uneven selection distribution, such that blocks with a higher priority are selected more often to take part in a packet.

Claim 14 is allowable over the prior art of record since the cited references taken individually or in combination fail to particularly teach or fairly suggest repeating the process of selecting a subset of blocks, generating a packet by combining blocks, and transmitting the packet over an open channel as long as a channel is open and after at least twice as many packets as required for reconstructing the file are transmitted.

Claim 35 is allowable over the prior art of record since the cited references taken individually or in combination fail to particularly teach or fairly suggest packets varying in an a-priori probability of a block being selected for inclusion in a packet.

Conclusion

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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hong Cho whose telephone number is 571-272-3087.

The examiner can normally be reached on Mon-Fri during 7 am to 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

hc
Hong Cho
Patent Examiner
12/8/06

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